

## REMARKS

Claims 1-16 are pending in the application. Claims 1-3, which were elected in response to the Restriction Requirement, are rejected. Claims 4-16 are withdrawn from consideration.

### *Election/Restriction*

The Examiner has withdrawn claims 4-16 from further consideration as being drawn to a non-elected invention. Applicant has canceled claims 4-16 without prejudice or disclaimer to the filing of a divisional application on the subject matter of the canceled claims.

### *Double Patenting*

Claims 1-3 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent 5,751,338 (*Ludwig I*) in view of U.S. Patent 5,382,972 (*Kannes*). With regard to claim 1, the Examiner finds in *Ludwig I* all of the claimed subject matter, but for the teaching of a multimedia central office configured to combine captured video images of at least three users into a mosaic image. The Examiner looks to *Kannes* for a teaching of a conference system for interactive video and audio, where there is a mosaic image reproduced. This rejection is traversed.

Claims 1-3 are rejected under the judicially created doctrine of obviousness-double patenting as being unpatentable over claim 1 of U.S. Patent 6,081,291 (*Ludwig II*), in view of U.S. Patent 5,382,972 (*Kannes*). Again, the Examiner finds in *Ludwig II*, a disclosure of all of the subject matter in pending claim 1 but for the teaching of a multimedia central office configured to combine captured video images for at least three users into a mosaic image for reproduction at a workstation of at least one user. *Kannes* is cited for its teaching of a conference system for interactive video and audio where a mosaic image is reproduced. This rejection is traversed.

In order to remove this basis for rejection, a Terminal Disclaimer is being filed, which allows the rejection to be overcome. This filing is made without prejudice or disclaimer, or any concession to the Examiner's position as to the alleged teachings of the cited art since (1) Applicant strongly believes that the cited art is not relevant, as detailed subsequently, and (2) Applicant believes the Examiner's position is not well founded as explained in the previous amendment,

### ***Claim Rejections - 35 U.S.C. § 112***

Claims 1-3 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner argues that in claim 1, the term “and/or” is vague and indefinite. The Examiner rejects claims 2-3 because of their dependency on claim 1. This rejection is traversed.

As previously stated, the phrase “and/or” has a clear meaning in the English language and is intended to cover two or more elements considered separately as well as such two or more elements considered together. The plain interpretation of this phrase as used in claim 1 was previously explained.

The Examiner states that the fact that a claim has alternative meanings does not clearly identify the invention. Applicant disagrees in that the claim covers the elements considered separately as well as the elements considered together. The Examiner states that it is unclear whether the claims covers a case involving “reproduction capabilities and video sink and display capabilities” or a case involving “reproduction capabilities or video sink and display capabilities.” It covers both cases. Applicant submits that there is no ambiguity.

In the event that this remains the only issue in contention and the claims are found to be allowable over the prior art, as Applicant has demonstrated they are, the Examiner is requested to contact the undersigned in order to work out acceptable language.

### ***Claim Rejections - 35 U.S.C. § 102***

Claims 1-3 are rejected under 35 U.S.C. § 102(e) as being anticipated by *Friedell et al* (5,491,508). This rejection is traversed.

The Applicant presented detailed reasons why the present invention is not anticipated by *Friedell et al*. These reasons include:

- The present invention is expressly directed to a system that extends beyond a local area network and includes an aggregating “Multimedia Central Office” that links the aggregate community (first premises network) with another workstation not in that network. This claimed arrangement permits connectivity via a wholesale wide area public switched network, thus resolving significant technical barriers.
- The multimedia central office of **claim 1** connects “a first network” and “at least another workstation not associated with the network”. The reach of the claimed system beyond the single local area network, or even such networks linked directly to

a wide area network, is clear from this language. A benefit of this arrangement, as is clear from the specification, is that it may be implemented in a wide area or public switched network.

- The *Friedell et al* reference is clearly limited to a local area network arrangement, as evident from Fig. 1, where all of the data relating to the operation of this system is carried by a separate LAN 12 that directly connects all of the workstations 10. Clearly, such system must be confined to a local premises, as the LAN 12 in *Friedell* is not disclosed as being switchably connected to other networks or workstations. *Friedell* has no teaching or recognition that its system may be implemented in a wide area or public switched network.
- **Claim 1** expressly states that the central office is operative to transceive audio/video and digital data signals (which includes digital switching information) as part of the multimedia exchange. In the expressly claimed environment of a mosaic, this means that the delivery and assembly of images along with accompanying audio are accomplished by transmitting the digital switching information along with the multimedia content. *Friedell et al* does not teach such transceiving.
- In short, *Friedell* does not have a “multimedia central office” nor a “first premises network” with a separate “user workstation,” as recited in **claim 1**.
- The reference does not teach the ability of a multimedia central office to combine captured video images of at least three users (one of which would be in the “other workstation not associated with the network) into a mosaic image as expressly recited in **claim 1**.
- The reference does not teach the claimed limitation “public digital network” in **claim 3**.

The Examiner attempts to rebut the Applicant's position in the Office Action by making the following assertions:

- Features on which the Applicant relies, particularly implementation in a wide area or public switched network, are not recited.

In reply, Applicant submits that the claim expressly defines an arrangement with a “multimedia central office” a “first premises network” and a separate “user workstation not associated with the first premises network.” The term “central office” has a meaning in the telecommunications arts that connotes switched connectivity outside of a particular network environment. The central office in telephone systems typically connect to other systems via networks, which may be wide area or public. As disclosed and used in the claims, the multimedia central office connects between one network of work stations and at least one other workstation not in that network. This arrangement permits connectivity via a wide area or public network. The claim states the arrangement that has the capability. Applicant’s previous comment is to emphasize that the capability is inherent in the arrangement. Although not stated in the claim, it is mentioned in argument because the arrangement in Friedell et al does not have such capability.

- The multimedia central office transceiving data signals is found in *Friedell*. The Examiner points to col. 6, line 41-59 for a teaching of transport of digital signals through the hub’s CPU and notes that the claim fails to specify how to transceive audio, video and digital data signals.

In reply, Applicant submits that there is no mention of digital signals in *Friedell et al*. In any event, the claim is concerned with digital data signals, which clearly are a separate category from audio and video signals. The important feature, as explained in the previous amendment, is that the digital data signals pass through the hub and are not handled by a separate link. Specifically, as claimed, the central office transceives digital data signals (i.e., switching signals and other overhead). There is no need to define how to transceive the digital data signals, just to state that the combination of three separate categories of video, audio and digital data are transceived together in the same unit.

This expressly claimed feature is missing from the reference. Figure 1 of *Friedell et al* clearly shows that digital data signals are transported separated via LAN 12 rather than through the hub 14. This is totally different from transceiving in the central office, as claimed.

- Each hub connection with a plurality of workstations “can be read as a first premise network, wherein the network connects to the hub which is further connected to another workstations by interconnecting with other hub, as shown in Fig. 1.”

*Friedell* teaches only a single network within which all workstations are connected via LAN 12, rather than a network connected to a central office which is further connected to another workstation (e.g., in another network). The claim language is clear and the Examiner is improperly distorting the interpretation of terms, far beyond simply broadly interpreting terms, to frame the rejection. Without repeating the detail from the previous Amendment, Applicant has demonstrated why the *Friedell et al* hub is not a multimedia central station with the claimed connections.

- *Friedell et al* teaches the ability of the hub to combine captured video images of at least three users, with reference to col. 8, lines 10-47.

The discussion of bridge circuit 500 combining signals from three sources into a single composite video signal so that the displayed video signal has three panels, each displaying a different video signal is limited to a single premises network. This discussion does not teach that the combined captured video signals are displayed at a workstation coupled to a multimedia work station that is not associated with the single premises network. The three inputs to the bridge 500 are at a single premises network and are displayed on terminals forming part of that network. Again, it is clear that *Friedell et al* operates in a single premises because the digital signals are carried on a LAN 12, such medium clearly being of use only locally.

Clearly, none of claims 1-3 are anticipated, as each and every limitation in each claim is not found in the reference. On the basis of the foregoing, Applicant respectfully submits that claims 1-3 are patentable over *Friedell et al*.

#### *Claim Rejections - 35 U.S.C. § 103*

Claims 1-3 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Ng et al* (5,473,363) in view of *Kannes* (5,382,972). The Examiner looks to the *Ng* reference for a teaching of the general structure of the claimed system but admits that it differs from the claimed invention by not teaching the multimedia central office configured to combine captured video image of at least three users into a mosaic image. The Examiner looks to *Kannes* for such teaching. This rejection is traversed.

#### Ng

The *Ng et al* reference has been recognized by the Examiner as having significant deficiencies in its teachings. The Examiner admits that *Ng* only teaches a backbone structure

involving a plurality of MCUs. However, the Examiner must further admit that the connection is in a daisy chain, with a MCU connectable to a maximum of two other MCU's in the chain. The Examiner must also admit that *Ng* only teaches the achievement of a decentralized MCU system. Finally, the Examiner does admits that *Ng* does not combine video images into a mosaic image for reproduction.

The presence of at least these four clear deficiencies in *Ng* requires the Examiner to look to *Kannes* for a supplemental disclosure.

#### Kannes

In the previous Amendment, Applicant clearly demonstrated that the courtroom system of *Kannes* suffers from the same deficiency as *Friedell*. *Kannes* is focused on a local and centrally controlled distribution network. Specifically, the preferred embodiment concerns a "courtroom" application where plural stations 11-14 having cameras C1-C4 are within a local courtroom environment and there is one remote station 15 having a camera C5 for a defendant. The system is controlled by a centrally located operator 6 (fig 2). The Examiner has not explained how or why one would consider combining *Kannes* with the *Ng* system. What would it look like and how would it be implemented? The Examiner states such combination would "reduce tremendous equipments costs." This is not sensible as *Kannes* is a courtroom system, with a coverage limited to a few adjacent rooms at most. Why would *Kannes* expand to a more complex network system as contemplated by *Ng*? Alternatively, why would the more complex system of *Ng* look to be limited by the simple system of *Kannes*, as such modification would severely restrict its capability.

Further, the references are incompatible because they take different approaches to a network architecture. *Ng* is directed to a decentralized system, while *Kannes* is a centrally controlled system. The Examiner is respectfully requested to look at the illustrations of the systems in the Figures of the respective references, particularly *Kannes*' Figures 5, 7 and 9 on one hand, which relate to centrally controlled communications between rooms and the cover page of *Ng* on the other. One of ordinary skill would not look to combining these two systems because of this completely different focus.

Moreover, even if combined, the system does not meet all of the express limitations outlined above. The Examiner fails to comment on the limitations discussed in detail in the

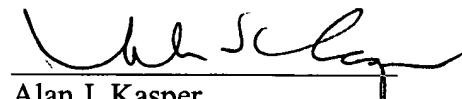
previous amendment, perhaps because the proposed combination would not have the necessary structures. Nowhere in the combination is there a switching through a multimedia central office, as that term would be understood to relate to non-local switching. Nowhere in the combination is there digital control information transmitted with the audio and video signals from one network to another and transceived through a multimedia central office. Nowhere in the combination is there a teaching or suggestion of an arrangement with the capability to be applied to a wide area network, specifically a system where a network having a plurality of workstations may be connected through a multimedia central office to at least one other workstation with video, audio and data being connected to the central office.

On the basis of the foregoing, the Examiner is respectfully requested to acknowledge the deficiencies in the teachings of the two references and to withdraw rejection of claims 1-3 on the basis of *Ng* and *Kannes*.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE CLAIMS:**

**Claims 4-16 are cancelled.**

**RECEIVED**

**MAR 17 2003**

**Technology Center 2600**